THE AMERICAN
X-RAY JOURNAL.

Devoted to Practical X-Ray Work and Allied Arts and Sciences.

PUBLISHED MONTHLY BY THE AMERICAN X-RAY PUBLISHING COMPANY.

HEBER ROBARTS, M. D., M. E., Editor.

SUBSCRIPTION RATES—IN ADVANCE.

United States, Canada and Mexico	$3.00	Foreign Countries	$4.00
Single Copies	25	Single Copies	35

Editorial matter should be addressed to Dr. Heber Robarts, Editor, Suite 301 Chemical Bldg., St. Louis.

All business matter should be addressed to The American X-Ray Journal Publishing Co., same address.

All contributors of original articles and other matter relative to X-Radiance, of interest to the medical profession, are solicited from all parts of the world. Contributors will be furnished a liberal number of extra copies of the JOURNAL containing their articles.

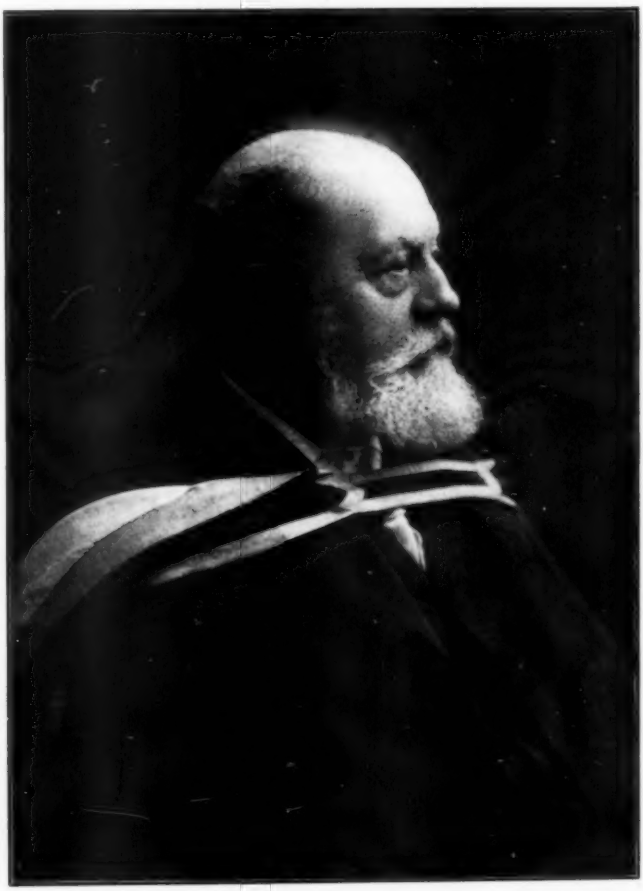
Translation of articles written in German, French and Spanish is made by Frank Ring, M. D., 611 Chemical Building, St. Louis.

Entered at the Postoffice at St. Louis, Mo., as Second-Class Matter.

VOL. 9. ST. LOUIS, SEPTEMBER, 1901. NO. 3.

CONTENTS OF VOL. 9, NO. 2

CONTENTS OF VOL 9, NO 3.



DR. G. P. GIRDWOOD,
Montreal, Canada.
President Roentgen Ray Society of America.

THE AMERICAN
X-RAY JOURNAL.

Devoted to Practical X-Ray Work and Allied Arts and Sciences.

VOL. 9. ST. LOUIS, SEPTEMBER, 1901. NO. 3.

DR. HEBER ROBARTS,
St. Louis, Mo.
First President Roentgen Ray Society of America.

The Roentgen Ray Society of America.

It will be noticed that the name of the Roentgen Society of the United States is changed so as to read The Roentgen Ray Society of America. This was made necessary to comply with the Constitution, which admits active members from the continent and especially from Canada, where the society has a healthy contingency.

This society was organized in February, 1900, in Dr. Robarts' office, St. Louis, in response to 100 invitations sent out to physicians by Dr. J. Rudis-Jicinsky, of Cedar Rapids, Ia. A president and secretary were chosen for the temporary organization and a regular meeting fixed for December 13 and 14, in New York City, in the Grand Central Palace. Announcement was made through THE AMERICAN X-RAY JOURNAL and the medical and electrical press everywhere. Voluntary papers were sent to the secretary and a most excellent program prepared. Manufacturers of x-ray apparatus and accessories applied for space and occupied one of the beautiful rooms shown in the cut herewith. The local arrangements were perfected by a committee of which Dr. S. H. Monell, of New York City, was chairman.

At the time this society was launched there seemed to have come over the x-ray world a settling down to quietude and actual work, since but little was then being said or printed on the subject. Many thought the x-ray followers were getting what Napoleon called "real punishment"—a let-alone policy. Subsequent events, however, have proven that the x-ray influence of that time was in a state of incubation. Many professional men had likened the advent of the Roentgen Society, as also they had THE AMERICAN X-RAY JOURNAL, to a dissertation upon the Will-o'-the-wisp. When once said it was all said. Ignis fatuus has mysterious wonders wreathed about its graveyard light, but to repeat the story was punching Judy in the face. The x-rays had crowned the period with astonishment and brought light where no vision hoped to dwell, but the story once told, relief and relaxation would follow with dreamy repose. Time has again shown that the complainer and wrecker fall together,

while the enthusiast and builder go on forever. The New York City meeting was a surprise. It was largely attended with 150 x-ray workers. The papers and proceedings were printed in THE AMERICAN X-RAY JOURNAL, extracts from which have been made in American and European journals.

The officers elected at that regular meeting were: President, Dr. Heber Robarts, St. Louis, Mo.; Secretary, Dr. J. Rudis-Jicinsky, Cedar Rapids, Ia.; Treasurer, Dr. E. A. Florentine, Saginaw, Mich. The president appointed on special committees: Standards, Dr. S. H. Monell, New York City, chairman; Research, Dr. J. B. Murphy, Chicago, chairman; Ways and Means, Dr. J. Rudis-Jicinsky, Cedar Rapids, Ia., chairman; Medico-Legal, Dr. Mihran K. Kassabian, Philadelphia, chairman. Time and place of next meeting was left with the president, who selected Buffalo, and September 10-11 the time. Edgar B. Stevens, E. E., of Buffalo, was made chairman of the Committee of Arrangements, who expended every energy to to furnish the necessities that made the Buffalo meeting so agreeable. Although Mr. Stevens had only recently returned from Europe, the perfect plans effected showed the deep interest he had in the society. The amphitheater and reception rooms of the Buffalo University were given over to us. Notices sent out brought voluntary papers to the secretary in abundance. A program was arranged 15 days prior to the meeting, as follows:

PROGRAM.

Tuesday, September 10, 2 p. m.

The Diagnostic value of the Roentgen Rays with special reference to their application in Medico-legal cases,
DR. MIHRAN K. KASSABIAN, Philadelphia, Pa.

An Examining Frame and "One Minute" Localizer, with demonstrations,
DR. S. H. MONELL, New York City.

How the induction Static Machine can be excited without a separate charger,
DR. JOHN T PITKIN, Buffalo, N. Y.

The X-Ray in country practice,
DR. JOSEPH C. CLARK, Olean, N. Y.

What the X-Rays show in Actinomycosis,
DR. G. E. FOSBERG, Cedar Rapids, Ia.

X-Ray work in Great Britain, results of a trip,
DR. G. P. GIRDWOOD, Montreal, Canada.

Voluntary Papers, practical demonstrations and inspection of the Exhibits.

Tuesday, September 10, 8 p. m.

President's Address,
DR. HEBER ROBARTS, St. Louis, Mo.

The discovery of the Bacilli in Cancer, Prof. Max S ueller, of Berlin, German University.—Electrotherapy, the safest cure of Lupus Vulgaris—The most recent inventions and improvements in Tubes, Coils, Static Machines, etc. (Illustrated)
JULIUS SILVERSMITH, Chicago, Ill.

Researches in the direction of obtaining Shadowgraphs of the Muscles and livaments of the body,
H. WESTBURY, Harrison, N. J.

Brief remarks on the therapeutic value of the X-Ray and suggestion on a universal co-operation,
DR. CONSTANTIN V. S. BOETTGER, Ottawa, Canada.

"Some Medico-legal X-Rays," illustrated,
DR. F. WESLEY SELLS, Murray, Iowa.

Investigation of X-Ray problems,
VIRGILIO MACHADO, Lisbon, Portugal

Skiagraphy of the concretions in urine, especially cystine,
M. U. DR. R. JEDLICKA, Chirurgical Clinic, Prague, Bohemia.

Wednesday, September 11, 10 a. m.

Why some mistakes are made in Radiography,
DR. J. N. SCOTT, Kansas City, Mo.

Description of a simple and efficient form of Electrolytic Interruptor,
DR. ELMER G. STARR, Buffalo, N. Y.

The treatment of Cutaneous Cancer by the X-Rays,
DR. G. E. PFAHLER, Philadelphia, Pa.

Use of the X-Ray as a Therapeutic Agent. Illustrated. Demonstration.
DR. H. P. PRATT, Chicago, Ill.

Some Light Rays in Tuberculosis,
DR. J. MOUNT BLEYER, New York City.

X-Ray, an absolute necessity in Dental Surgery,
DR. FRANK AUSTIN ROY, New York City.

Wednesday, September 11, 2 p. m.

The X-Ray Tube,
DR. EMIL H. GRUBBE, Chicago, Ill.

Development in Crooke's Tubes in 1901,
H. WESTBURY, Harrison, N. J.

X-Ray Machinery,
W. C FUCHS, Chicago, Ill.

The Relative Efficiency of X-Ray Generators,
DR. W. A. PRICE, Cleveland, O.

Position in Skiagraphy,
M. E. PARBERRY, St. Louis, Mo.

Turck's Gyromele and the X-Rays in diagnosis of the diseases of the Stomach. Demonstration. Illustrated.
DR. J. RUDIS-JICINSKY, Cedar Rapids, Ia.

Voluntary Papers, practical demonstrations and inspection of the Exhibit.

Committee on Arrangements in Buffalo have plans for entertaining members.

This was strictly adhered to, with slight exceptions. The matter these papers contain is most valuable, and, with some extractions, will be printed in THE AMERICAN X-RAY JOURNAL fast as possible. No one can hope to be acquainted with the recent evolutions of this science and art unless they read and study these papers. Much is lost in not being present at the meeting. The writings were illustrated in many instances and elicited inquiry and an-

swers that writing alone fails to express. Those who attended this meeting were many times repaid for their time and expense. The therapeutics of the x-rays was gone into very fully. The facts brought out must attract wide interest. Methods of using the x-rays for curing malignant disease differed only in technic, but in every instance reports of cures were effected or improvement followed.

This Buffalo meeting was another surprise. The meeting was more largely attended than the most sanguine had hoped. One hundred and five new names were registered and money paid for membership. These, of course, went before the censors. Dr. Roswell Park, one of our older members and one of President McKinley's surgeons, addressed the meeting. Owing to reporters bombarding members and gleaning from dropped words here and there at the interum of sessions, and publishing the same as official, Dr. Heber Robarts introduced the following resolution, which was unanimously adopted:

Resolved: That this society assembled express its deepest sense of sorrow for the recent affliction inflicted upon William McKinley, our President of the United States; that our society has profound confidence in the wisdom and ability of the great surgeons in charge, and condemn any and all unkindly remarks that have, unfortunately, been publicly or privately expressed concerning the uses of the Roentgen rays, relying, as we do, on mitigating circumstances, known to the surgeons only.

Resolved: That a copy of this resolution be stricken off and sent to Dr. Roswell Park, a member of the society.

The new officers elected for the ensuing year are:—President, Dr. G. P. Girdwood, Montreal, Que.: Secretary, Dr. James Bell Bullitt, Louisville, Ky.; Treasurer, Dr. E. A. Florentine, Saginaw, Mich. An Executive Committee, having quite plenary scope, was organized, with Dr. Weston A. Price, of Cleveland, Ohio, as chairman, and Dr. Marsh, of Troy, N. Y., and Dr. Johnson, of Rochester, N. Y., associates. The closing scenes of the Roentgen Society was a veritable panegyric of mental rejoicing.

Can anybody refrain from applauding, yea, more, to sound and herald the merits of this body? To whom is it due? More advance has been made in diagnostic medicine through the x-rays than any previous hundred years. The Roentgen ray has done more to remove the fright of cancer, the dread of lupus and the shame of eczema than the influence of all previous knowledge. Truly, more is in store: excepting the extinct scourges of medieval times, raying is destined to wipe out a wider range of disease by invading the body. Its action is already proven benignly in phthisis, tuberculous joints, kidney diseases—in fact, all affections where bacteria is causative.

The Roentgen Ray Society of America is expected to spread these truths through the medium of its members. But let us continuously look for light—more light, remembering again that it is the builder that constructs—not the wrecker. Our mission is onward, while the destroyers sleep by the wayside. We follow beacon lights in science and forget maledictions. We are reaching out, not blindly into the siftings, but into clearer domains, where the flight of man aspires. We reach for the stars, and our ambition is not fulfilled. The most distant twinklings allure us, and, solving the wonders there, we plunge into the abyss beyond, seeking the unknown. If we are a fraternity, then in union there is strength. Each member is strengthened by the strength of the whole. Then we can better seek the realm of diagnostic medicine—the physicians' goal. So we are seeking the waywardness of man's anatomy, not so much his mentality. We are looking for the cause of man's suffering, quite content with the remedies at hand. We

These cuts show the rooms in which the Roentgen Society of the United States met in first annual meeting, Grand Central Palace, New York City, December 13 and 14, 1900. One room was well filled with exhibits and the other seated for 230 members and spectators.

are already proud of our achievements, of its revolutionizing influences, of the conquering x-rays. Conscious, however, of this reward, we behold a new vista and turn from the proud sense of victories won to the labors that await us. Like receding from the small end of the funnel, the working plane expands. We take up the taper of accumulated past and with the searching light seek untrodden paths. Then, approaching the consummation of our ambition, we can proclaim--

> With visions clearer than e'en tears could make
> The eyes, whose limit was the violet rays,
> We now may see, and things that lie beyond—
> Life's mysteries long screened are ours today.

The following is a running clipping from an editorial in the great New York Medical Record. It was written at the time Dr. Shrady, the venerable and accomplished editor, believed the lamented President would recover. He writes:

"The only trouble now from the latter view centers in the present uncertainty as to the location of the bullet. Although believed to be lodged in the muscles of the back somewhere in the lower dorsal or upper lumbar region, there has been no means as yet of proving such a point. Of course, every hope now rests in the probability of the missile becoming safely encysted and consequently harmless. *It is somewhat difficult to understand why, up to this writing, the x-ray, so easily and effectually applied, has not been brought into service.* It would hardly be so much a matter of gratifying curiosity—as remarked by one of the eminent surgeons in the case—as of being absolutely sure of the terminal track of the missile. It is to be hoped that the bullet course behind and beyond the stomach is in a safely closed and aseptic condition. *This would seemingly be the only absolute guarantee against any future trouble from secondary suppurating processes.*"

The italics are our own. Another reference to these lines might benefit surgeons. Is it possible that the last sentence was a prophesy? May it be possible for secondary suppurating processes to have occurred about the bullet, the removal of which at the time of injury would have prevented.

In a recent monogram or reprint, if we remember correctly, Dr. Beck has some radiographs made from clinical cases exemplifying "Possible Error in Skiagraphy." Four pictures are shown, three of which are radiographs taken at different angles and one of which fails utterly to show a fracture, while the other two show plainly that it is oblique. In the December, 1899, issue of THE AMERICAN X-RAY JOURNAL, pages 671 to 674, we argued this point editorially quite fully and diagramatically showed exactly what would occur under certain conditions. Means were pointed out to avoid all possible error. The caption of this article is "Photographs and Radiographs, Proof of Accuracy Essential to Admission as Evidence." We are glad to see that Dr. Beck has had an opportunity to prove this in practice. In this particular case irradiation proved a fracture, without which it would have been accepted as a bruise. Accuracy in diagnosis—positive knowledge, not collateral and circumstantial—is what every doctor needs.

We hope that discussion of the uses of the x-rays in the lamented President's case will not occur. No good can come out of such disputes. As the only x-ray journal in this country we feel it is our duty to mention this since also we are the most deeply interested.

Localization methods were numerous at the Roentgen Society meeting. However, nothing has yet taken the place of the fluorometer for simplicity and accuracy.

STATIC ELECTRICITY.

What It Really Is—A Plain Statement Divested of Technical Terms and Misleading Matter.

BY HENRY E. WAITE, M. D.

The claims made by some recent writers on static electricity in regard to their alleged wonderful discoveries are misleading and unauthentic. The discovery of static electricity was made

Inventor of the First Electric Machine, 1671.

over three centuries ago by Otto Guericke, a Burgomaster in Magdensburg, Holland, who invented and manufac-

First Electric Machine, 1671 A. D.

tured the first static machine in 1671. He discovered the principles of attraction and repulsion, also conduction and a spark, his machine being a sulphur ball revolving in trunions. In inventing this machine Guericke discovered all of the currents which have been called by many names since.

The next inventor was Newton, who substituted a glass ball in place of the sulphur one. Later Hawksby discovered the electric glow or electric light and he brought it prominently before the public. Subsequently there were a series of balls used together, and in 1731 Gray made extensive experiments in producing electricity by rubbing a glass rod, and charging bodies suspended by silk ropes.

From that time on various styles were introduced one of which had a glass cylinder, another a glass plate

First Electro-Therapeut in the U. S. 1740.

and these were used until Holtz made his celebrated induction or influence machine in 1856. This remains today the most powerful machine for generating static electricity.

The old writers call attention particularly to their methods of treatment; they will be found to mention a spark treatment, Leyden jar shock, and a brush discharge from points, either metal or wood. Attention is especially called to the method of treating with Leyden jars or a Leyden jar modification mentioned by these old writers, which is called the Lane Electrometer, but which has been claimed by one of

our recent writers as *his induced current* and as having been discovered by him in 1881. These methods were fully described by Cavello, Franklin, Watson, Priestly, Cuthburtson, and by Adams over a hundred years ago.

When the history of the subject is looked into are not the statements of a very prolific writer of the present time, who claims to be the discoverer of induced and wave currents of statical electricity, ridiculously wide of the truth? Subjoined is a quotation from one of the old writers referred to who had this to say over two centuries ago and I quote the following from

ADAMS' ESSAY ON ELECTRICITY, 1792.

By the Electric Friction.—"Cover the part to be rubbed with woolen cloth or flannel. The patient may be seated in an insulated chair, and rubbed with the ball of a director that is in contact with the conductor; or one may be connected with the conductor, and rubbed with a brass ball which communicates with the ground. The friction thus produced is evidently more penetrating, more active and more powerful than that which is communicated with the flesh brush; and there is, I apprehend, very little fear of being thought too sanguine, if I assert, that this, when used but for a few minutes, will be found more efficacious than the other, after several hours' application. Electricity applies here with peculiar propriety to spasm, pleurisy, and some stages of the palsy, and in every case answers the end of blistering where discharge is not wanted, being the most safe and powerful stimulent we know."

By causing a current of the electric fluid to pass from one part of the body, and thus confining and concentrating its operation without communicating the shock.—"Place the patient in an insulated chair, and touch one part of the body with a director, joined to a positive conductor; then with a brass ball communicating with the ground, touch another part, and when the machine is in action the fluid will pass through the required part, from the conductor to the ball; the force of the stream will be different according to the strength of the machine, etc. Or connect one director with the cushion and the other with the positive conductor, and apply these to the part through which the fluid is to pass, and when the machine is in action the electricity will pass from one ball to the other. It is not necessary to insulate the patient in this case."

By the Shock.—"Which may be given to any part of the human body, by introducing that part of the body into the circuit which is made between the outside and inside of the bottle. This is conveniently effected, by connecting one director by a piece of wire with the electrometer, and the other with the outside of the bottle; then hold the directors by their glass handles, and apply the balls of them to the extremity of the parts through which the shocks are to be passed. The force of the shock, as we have already observed, is augmented or diminished by increasing or lessening the distance between the two balls, which must be regulated by the operator to the strength and sensibility of the patient. When the little bottle with the glass tube is used as a common bottle, both wires are to be left there, and the shock is communicated by two directors, one connected with the bottom, the other with the top by means of the electrometer. The operator will often find himself embarrassed in giving small shocks, the fluid passing from the conductor to the ball of the electrometer, instead of going through the circuit he desires; when this happens, which may be known by the chattering noise of the spark in passing to the electrometer, the resistance formed to the discharge is so great, that the fluid can not force its

way through the circuit; to remedy this, and lessen the resistance, pass two metallic pins through the clothing, so that they may be in contact with the skin, which will lessen the resistance, and conduct the fluid." *This is the induced current claimed as a recent discovery.*

By a sensation between a shock and the spark, which does not communicate that disagreeable feeling attending the common shock —"This is effected by taking out the long wire from the small medical bottle, and leaving the shorter one which is connected with the tube in its place, the directors to be connected and used as before. In lessening this vibratory shock the electrometer may be drawn to a much greater distance; for the rapidity with which the charge of the bottle sends forward the charge of the tube, is sufficient to overcome the resistance of a large body of air. The effect of this species of shock, if it may be called one, is to produce a great vibration in the muscular fibres, without inducing that pungent sensation which the shock effects. It is therefore applicable to some stages of palsy and rheumatism; it may also serve as an artificial means of exercise." *This is the wave current claimed as a new discovery.*

By the Bottle Director.—"Insulate the patient, and place the ball in contact with him, by which means this director is charged. Now if the wire is conveyed from the bottom of this to the top of another director, the bottle director will be discharged whenever the ball is brought in contact with the patient, so that by bringing it down with rapidity any number of small shocks may be procured in a minute. Or connect the insulated patient with the top or inside of a large charged jar, and then this apparatus used in the foregoing manner will discharge from the jar, at each spark, its own contents, and by repetition discharge the whole jar; thus a number of shocks may be given without continually turning the machine, or employing an assistant."

By passing the whole fluid contained in the Leyden Phial through a diseased part without giving a shock.—"Connect a director by means of a wire, with the ball of a Leyden jar; charge the jar either completely or partially, and then apply the ball or point of the conductor to the part intended to be electrified, and the fluid which was condensed in the phial will be thrown on the part in a dense flow stream, attended with a pungent sensation, which produces a considerable degree of warmth. If a wire that communicates with the ground is placed opposite to the end of the director, the passage of the fluid will be rendered more rapid, and the sensation stronger. Or insulate the patient, connect him with the top of the jar, charge this, and then apply a metal wire or piece of wood to the part through which you mean to make the fluid pass. It is obvious, that in this case the circuit between the inside and outside of the jar is not completed, therefore the shock will not be felt. The condensed fluid passes in a dense flow stream through the required part, while the outside acquires a sufficient quantity from substances near it to restore the equilibrium."

We shall now analyze the static current and see what it really is. There are only three conditions or rather three states of static electricity: The first one a condition of strain (this is when the apparatus is charging), the second induction, the third a spark. We first fill up something, it may be a Leyden jar, or an insulated patient, and when voltage is of sufficient force to overcome the resistance of the dielectric air, which is between the pole pieces, the spark jumps and it is discharged; and this goes on repeatedly and with a rapidity which depends upon the generating power of the apparatus.

We insulate a patient on a platform which has glass legs; then connect the positive prime conductor of the machine to the insulated platform on which the patient is placed, dropping the other chain on the floor or grounding it to a water pipe, it matters little which. We start the machine in operation, the patient becomes the extended prime conductor and practically that patient becomes the inner coating of the Leyden jar, the glass legs take the place of the glass jar, and a chain dropping from a negative prime conductor to the floor makes the floor the outer coating of the Leyden jar. The sliding pole pieces may now be separated to any desired distance according to the case about to be treated. The operator should always remember that the nearer the balls of the sliding pole pieces approximate the more rapid will be the discharge, there being less resistance to overcome in the shortened air space. As soon as sufficient voltage accumulates to overcome the air space a spark jumps, and with such great rapidity, that it seems almost a continuous spark producing an oscillatory condition in the entire body. It is practically a strain and a release; a push and a pull; filling up and emptying; as, taking a glass of water and pouring it from one glass to the other; charge and discharge.

It may be that only the patient's feet are on the electrode; or his joints may be wrapped in any suitable conductor such as lead, tin, tinsel, or moistened cloth, the whole body is under the influence of the current. Now separate the poles widely and the patient is in a condition of positive strain, which is called static insulation. If we approch the patient on the insulated platform with an electrode held in one hand, we form a spark gap between the electrode and the patient. If we use a pointed electrode we have what is termed a brush discharge; if it is a ball electrode we have a disruptive discharge called the static spark. This may be of greater or less intensity according to the size and material of the ball and the distance from the patient. If the connecting chain is dropped on the floor the current will be mild; if connected directly to the machine it will be very strong; if held in the hand of the operator, so that his body becomes part of the circuit you have a very mild method of application, which allows you to treat the case from any side. This form of treatment is very pleasant to the patient and the one that should be used when beginning static treatment.

By this explanation it will be seen that to have a current there must be a spark gap, which, in this case is air. There is no action excepting that of strain until the spark passes. You must have a spark or else you have nothing but insulation, and this spark depends upon the kind of electrode you use, as to whether severity or mildness of treatment is desired. If you have a conductor in contact with the patient, and a spark gap between the patient and the machine you have a mild effect which does not irritate the skin.

Whether the spark gap is in one place or another the result is the same; it is the make and break of the strain. This was described by Mouduyt in 1784.

I have found that the static machine should be run at a speed varying from fifty to six hundred and fifty revolutions in therapeutics and for x-rays.

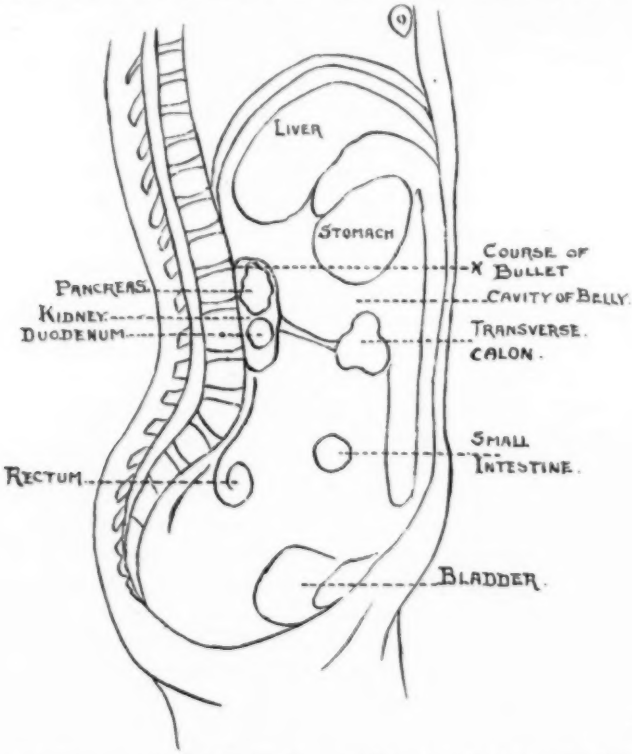
The test of a static machine is the length of its spark, the radius, one-half of the diameter of the revolving plates being the theoretical limit that a static machine should give under its best conditions. A few words in reference to leakage of a static machine: A static machine that does not leak will not give a current of any quantity.

Static electricity, so called, or static

induction has a very great diffusive power; in fact, every article in the room and even the sides of a room are affected when a machine is working by this inductive capacity. It is something on the same principle as wireless telegraphy; the oscillations extend for miles, and a leakage proves that the machine is powerful and capable of generating immense quantities of static electricity.

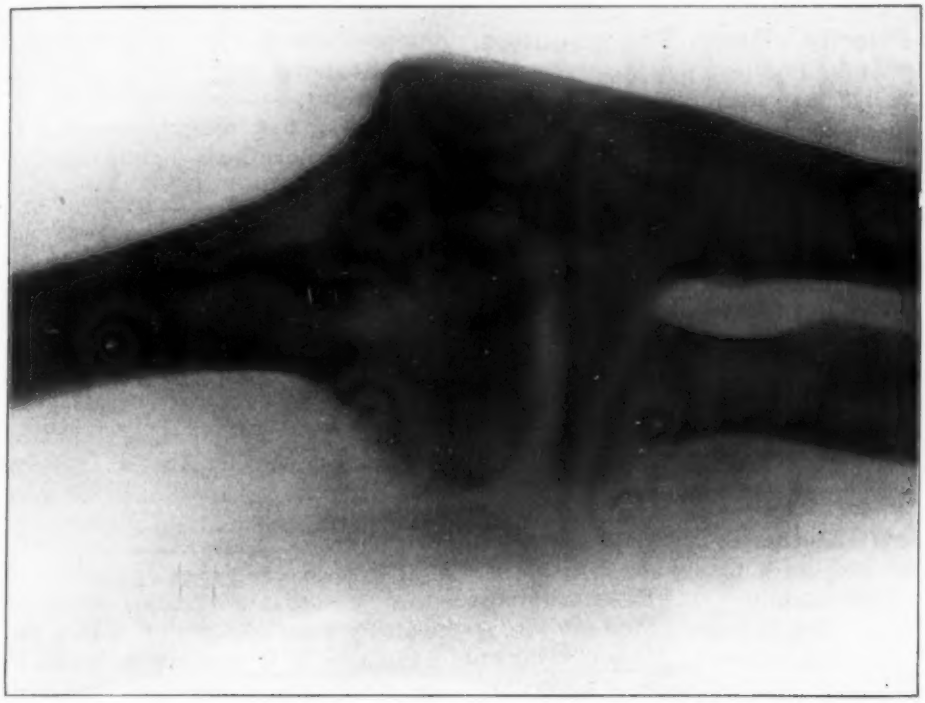
108 E., 23d St., New York City.

The probable course of the bullet in President McKinley's case is diagramatically shown in accompanying cut. The relative position of the kidney with

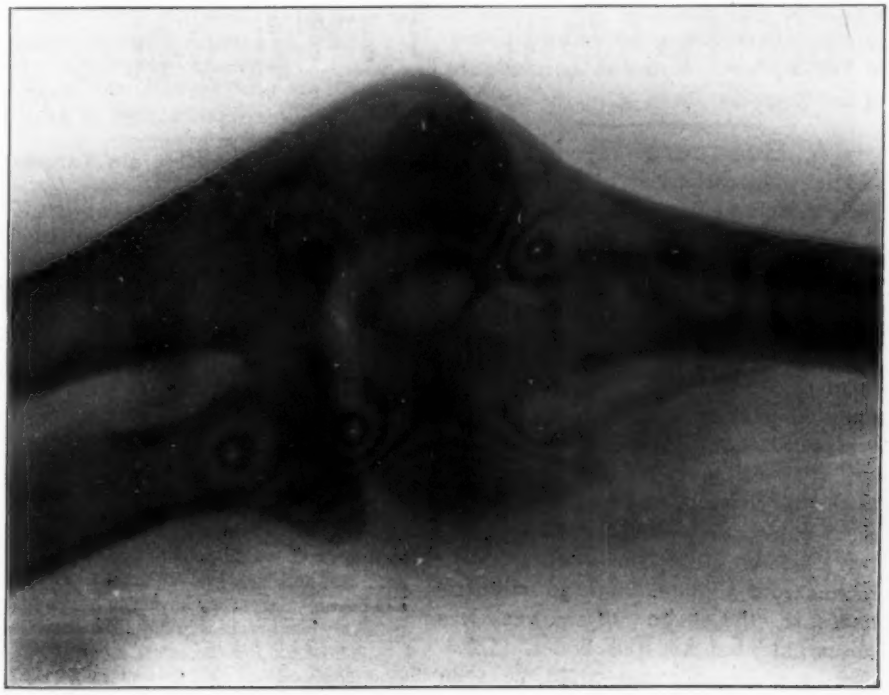


pancreas is not correct, but kidney is drawn large to better show the possibility of wounding both organs. The erratic course of bullets are known to all surgeons and it is possible that the pancreas, which is behind the stomach and the kidneys, slightly lower, may both have been injured. The bullet, 32 caliber, penetrated the abdomen five inches below the nipple, and an inch and a-half to the left of the median line. It is not certain the bullet injured either pancreas or kidney, although symptoms have so indicated, for the missile has not been traced beyond its point of exit from the posterior wall of the stomach.

The *Virginia Medical Semi-Monthly*, abstracting from an article by Dr. S. Lile, prints these words: "I failed, my error being made by filling the room with steam, in order to give the child hot, moist air to breathe; the moisture, of course, deflecting the rays and I was unable to obtain any glow in the tube at all." It should be remembered that the x-rays are not deflected by moisture or any other known substance. The apparatus was probably influenced by the moisture and there was, therefore, not enough current to generate radiance.



No. 1 is Radiograph of Normal Elbow, taken in corresponding position with No. 2, same person.



No. 2 shows fracture external condyle of humerus 10 weeks after accident. Case was medico-legal.

Priority, Radio-Therapeutics.

At the Roentgen Ray Society meeting in Buffalo an attempt was made to start a discussion on priority of the therapeutic uses of the x-rays, Dr. Pratt, of Chicago, read a paper in which he alleges to have used the rays as early as April 13, 1896, for the cure of lupus. This certainly was the first effort to so apply the new radiation. In July, 1898, Dr. Hahn, of Hamburg, used it successfully in eczema. Freund and Schiff, of Vienna, used it in lupus in 1897. Dr. Kummell, of Hamburg, used it in lupus and in 1899, same year, published an article upon the subject in the Annals of Electro-Biology. Professor Rieder, of Munich, published his researches on bactericidal properties of the x-rays in 1898 in Medicinische Wochenschrift. He proved its curative properties in lupus, eczema, favus, sycosis and psoriasis. Freund, Hahn and Holland June 15, 1900, published the treatment of 13 cases of lupus in Gesellschaft der Aertze in Mien. Miss Sharp read her experience at the Roentgen Society of London, which was published in Vol. V, Nos. 2 and 4 of the Archives of the Roentgen Rays.

Becquerel Rays.

The preparations styled radio-active barium and radio-active bismuth refer to polonium and radium, respectively, compounds discovered by Madame Curie. By elimination and selection she isolated these from uranium and thorium ores, particularly the Bohemian pitch-blende. It requires several hundred pounds of this to obtain a few grains of the highest efficiency of radio-activity. When put in a small glass tube and covered, one end, with paraffined paper, they would emit invisible rays, behaving like the x-rays. Four inches from a plate, after 30 minutes' exposure, the shadow of the hand was observable, but not the bones. However, a piece of metal could be seen through the hand. The screen fluoresces with Becquerel rays but too feeble for practical irradiations. F. Giesel, of Brunswick, has recently obtained in very small quantities slightly superior radio-activity.

One feature of the x-rays was well shown at the Buffalo meeting of the Roentgen Society in that we are in a condition of evolution. The science is not fixed, but with all its marvelous strides already made useful to man, it is fast growing. Apparatus exhibited at the New York meeting show at the Buffalo meeting great changes. This is especially the case in simplicity of working parts and the controlling machinery.

The October issue of THE AMERICAN X-RAY JOURNAL will contain some illustrations of the therapeutics of the x-rays especially as it pertains to malignant growths. Clear description of the method of using the x-rays in these cases will be given. The importance of this matter is so great the editor will answer personal inquiry assisting others in raying.

There are now several women members of the Roentgen Society of America.

Antikamnia and Heroin Tablets.

This is a new combination tablet containing five grains of antikamnia and one-twelfth grain of heroin hydrochloride (muriate) and the medical profession is so well acquainted with the two drugs composing it that it is needless to go into their respective histories. These tablets, aside from their use as a respiratory stimulent, sedative, analgesic and expectorant have been found an excellent remedy for the relief of pain and also a valuable anti-spasmodic in whooping cough. They are an efficient analgesic in the neuralgias, especially in sciatica, trigeminal and intercostal neuralgia. In the treatment of the morphine habit they are said to be of highest value. They constitute the safest and most efficient remedy in the treatment of cough, dyspnoea, phthsis, bronchial and laryngeal affections, emphysema and pneumonia. They have also been employed with very great success in hay fever, coryza, etc.

Administered for the *severe pains* of rheumatism, gout and lumbago, as well as for the light-